

عنوان مقاله:

Synthesis and Identification of Some New Imidazolidine- β -one, Oxazolidine- β -one and Thiazolidine- β -one Derivatives from Phenidone and Their Antimicrobial and Antioxidant Activities Investigation

محل انتشار:

نشریه پیشرفته شیمی، دوره 7، شماره 6 (سال: 1403)

تعداد صفحات اصل مقاله: 16

نویسندگان:

Hussein Qabel - Department of Chemistry, College of Science, University of Baghdad, Baghdad, Iraq

Suaad M.H. Al-Majidi - Department of Chemistry, College of Science, University of Baghdad, Baghdad, Iraq

خلاصه مقاله:

The reaction of β -phenyl- γ -pyrazolidone (phenidone) bound to sodium hydride and reacting with chloroacetyl chloride give compound (1) which then reacts with hydrazine hydrate to give compound (2). Compound 2 when reacted with substituted benzaldehydes, produced five derivatives of Schiff's base (3-7) these derivatives were then introduced into the cyclization process with glycine, β -chloro acetic acid and β -mercaptoacetic acid to yield new imidazolidine- β -one, oxazolidine- β -one and thiazolidine- β -one containing β -phenyl- γ -pyrazolidone. The newly synthesized compounds were structurally validated using FTIR, ^1H NMR, and ^{13}C NMR spectroscopy in vitro studies were conducted to assess the antimicrobial properties and total antioxidant capacity, as well as the reducing power assay for the compounds. The results shown [8, 9 and 14] have good antioxidant activity

کلمات کلیدی:

Phenidone, Imidazolidine- β -one, Oxazolidine- β -one, Thiazolidine- β -one, anti-microbial, Antioxidant

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/2057563>

